



IFW

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**In re Application of:**

van Weeghel et al.

**Serial No.:** 10/791,152

**Filed:** March 2, 2004

**For:** DETERMINATION AND  
QUANTIFICATION OF RED BLOOD  
CELL POPULATIONS IN SAMPLES

**Confirmation No.:** 3166

**Examiner:** To be assigned

**Group Art Unit:** 1645

**Attorney Docket No.:** 2183-6372US

CERTIFICATE OF MAILING

I hereby certify that this correspondence along with any attachments referred to or identified as being attached or enclosed is being deposited with the United States Postal Service as First Class Mail on the date of deposit shown below with sufficient postage and in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

March 24, 2005

Date

Signature

Shirley Dougherty  
Name (Type/Print)

REQUEST FOR CORRECTED FILING RECEIPT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Attached is a copy of the official filing receipt received from the PTO in the above application.

The errors to be corrected are as follows:

This application is a continuation of PCT International Patent Application No.

PCT/NL/02/00579, filed on September 4, 2002, designating the United States of America, and published, in English, as PCT International Publication No. WO 03/021275 A1 on March 13, 2003, the contents of the entirety of which is incorporated by this reference. A copy of page 2 of the Specification filed on March 2, 2004 is also attached to this request.

Serial No.: 10/791,152

Issuance of a corrected filing receipt in accordance with the annotations on the attached filing receipt copy is respectfully requested.

Respectfully submitted,



Allen C. Turner  
Registration No. 33,041  
Attorney for Applicant(s)  
TRASKBRITT  
P.O. Box 2550  
Salt Lake City, Utah 84110-2550  
Telephone: 801-532-1922

Date: March 24, 2005  
ACT/sdd

Enclosure: Copy of Official Filing Receipt with annotations correcting errors  
Document in ProLaw



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPL NO.	FILING OR 371 (c) DATE	ART UNIT	FIL FEE REC'D	ATTY.DOCKET NO	DRAWINGS	TOT CLMS	IND CLMS
10/791,152	03/02/2004	1645	504	2183-6372US	5	20	4

24247  
TRASK BRITT  
P.O. BOX 2550  
SALT LAKE CITY, UT 84110

RECEIVED  
MAR 03 2005  
TRASKBRITT, P.C.

CONFIRMATION NO. 3166

UPDATED FILING RECEIPT



\*OC000000015297881\*

Date Mailed: 02/28/2005

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Filing Receipt Corrections, facsimile number 703-746-9195. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

**Applicant(s)**

Robert Paul van Weeghel, Groningen, NETHERLANDS;  
Roelf Johan Suk, Groningen, NETHERLANDS;

**Power of Attorney:**

William Britt—20969

Edgar Cataxinos—39931

Joseph Walkowski Jr—28765

Bretton Crockett—44632

Laurence Bond—30549

Andrew Nilles—47825

Allen Turner—33041

Krista Powell—47867

Brick Power—38581

Gregory Dorland—51622

**Domestic Priority data as claimed by applicant**

This application is a continuation of  
PCT/NL02/00579 filed Sept. 4, 2002

**Foreign Applications**

EUROPEAN PATENT OFFICE (EPO) 01203341.1 09/04/2001

**If Required, Foreign Filing License Granted: 05/25/2004**

**The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is US10/791,152**

**Projected Publication Date: 06/09/2005**

**Non-Publication Request: No**

**TITLE OF THE INVENTION**  
**DETERMINATION AND QUANTIFICATION OF**  
**RED BLOOD CELL POPULATIONS IN SAMPLES**

**CROSS-REFERENCE TO RELATED APPLICATION**

**[0001]** This application is a continuation of PCT International Patent Application No. PCT/NL/02/00579, filed on September 4, 2002, designating the United States of America, and published, in English, as PCT International Publication No. WO 03/021275 A1 on March 13, 2003, the contents of the entirety of which is incorporated by this reference.

**TECHNICAL FIELD**

**[0002]** The invention relates generally to biotechnology, and more particularly to the detection and determination of erythrocytopathies and hemoglobinopathies.

**BACKGROUND**

**[0003]** The detection of circulating fetal cells in maternal blood samples represents an important area of laboratory support to the obstetrical management of women. Although the concentration of fetal erythrocytes found in the maternal blood circulation during pregnancy is mostly very small and without a clear clinical significance in many cases, substantial hemorrhage may result from a number of causes including fetal or maternal trauma and placental defects (1). The quantification of fetal red blood cells (RBCs) is most commonly used to estimate the degree of feto-maternal hemorrhage (FMH), either in cases of trauma with suspected placental injury or in the situation of RhD incompatibility between the fetus and the mother for prevention of hemolytic disease of the newborn (HDN) during pregnancy (2, 3). The obstetrical management of women includes the prevention of mother immunization against a foreign fetal cell antigen and the monitoring of maternal antibody concentration. To prevent an immune response, an immunoprophylaxis based on anti-RhD polyclonal antibodies is given to the mother at a dose proportional to the estimated count of fetal RBCs present in the maternal blood circulation (4, 5). It is, therefore, important to be able to at least semi-quantify the relative amount of the cells.

**[0004]** Most clinical laboratories perform FMH estimates on the basis of variations of the slide-based microscopic counting method of acid elution originally described as the